What is claimed is:

1. An optical system for a gas component analysis, comprising:

a first emitter for emitting a first light beam having a first spectrum;

a second emitter for emitting a second light beam at a second spectrum;

a first receiver for receiving the first light beam; and

a second receiver for receiving the second light beam, wherein the first light beam travels along a first path in a first direction and the second light beam travels along a second path in a second direction and at least a portion of the first light path overlaps with at least a portion of the second light path to form an overlapping beam, and at the overlapping beam the first direction is opposite to the second direction.

2. The system according to claim 1, further comprising:

a third light emitter for emitting a third light beam; and

a third light receiver for receiving the third light beam, wherein the third light beam travels along a third path, and at least a portion of the third path overlaps with at least a portion of the second path.

3. The system according to claim 1, wherein the light beam is projected across a vehicle path, and the first and second emitters and first and second receivers are located on one side of the vehicle path, and wherein the system comprises a reflector located at the other side of the vehicle path to direct the first and second beams from the first and second emitters to the first and second receivers respectively.

4. The system according to claim 3, when the reflector is a retroreflective assembly having at least three reflective faces, and wherein at least one of the beams travels across the road at a first height above the road, and returns across the road at a second height above the road different from the first height.

5. The system according to claim 1, wherein the first emitter is one of a infrared, ultraviolet light, or visible light emitter.

6. The system according to claim 5, wherein the second emitter is one of a infrared, ultraviolet light, or visible light emitter.

7. The system according to claim 2, wherein the first emitter is one of a infrared, ultraviolet light, or visible light emitter, wherein the second emitter is one of a infrared, ultraviolet light, or visible light emitter, and wherein the third emitter is one of a infrared, ultraviolet light, or visible light emitter.

8. The system according to claim 1, further comprising a combining element that combines light from the first and second emitters so that a portion of the first and second beams follow the same path in opposite directions.

9. The system according to claim 2, further comprising a combining element that combines light from the second and third emitters so that a portion of the second and third beams follows the same path in the same direction.

10. The system according to claim 8, wherein the combining element comprises a neutral density filter.

11. The system according to claim 8, further comprising a splitter element that splits the combined first and second beams into separate beams.

12. The system according to claim 1, wherein a portion of the first and second beams follow the same path in the same direction to form a combined beam, and further comprising a splitter element that splits the combined first and second beams into separate beams.

13. The system according to claim 10, wherein the splitter element comprises one of a dichroic mirror and a neutral density filter.

14. The system according to claim 11, wherein the splitter element comprises one of a dichroic mirror and a neutral density filter.

15. The system according to claim 10, wherein the splitter element comprises a Y-shaped fiber optic cable that splits the combined first and second beams into separate beams.

16. The system according to claim 11, wherein the splitter element comprises a Y-shaped fiber optic cable that splits the combined first and second beams into separate beams.

17. The system according to claim 1, wherein the first emitter is a see-through ultraviolet emitter, and the second emitter is a visible light emitter that directs light at the first emitter, and the ultraviolet light and visible light form a combined beam.

18. The system according to claim 16, further comprising a focusing element disposed between the first and second emitters.

19. The system according to claim 1, further comprising at least one paraboloidal mirror disposed along a path of the first light beam between the first emitter and the first detector.

20. The system according to claim 18, further comprising a second paraboloidal mirror disposed along the path of the first light beam between the first emitter and the first detector.

21. An optical system for a gas component analysis, comprising:

means for emitting a first light beam having a first spectrum;

means for emitting a second light beam at a second spectrum;

means for receiving the first light beam; and

means for receiving the second light beam, wherein the first light beam travels along a first path in a first direction and the second light beam travels along a second path in a second direction and at least a portion of the first light path overlaps with at least a portion of the second light path to firm an overlapping beam, and at the overlapping beam the first direction is opposite to the second direction.

22. A method for gas component analysis, comprising:

emitting a first light beam having a first spectrum;

emitting a second light beam at a second spectrum;

receiving the first light beam;

receiving the second light beam, and

directing the first and second light beams so that the first light beam travels along a first path in a first direction and the second light beam travels along a second path in a second direction and at least a portion of the first light path overlaps with at least a portion of the second light path to firm an overlapping beam, and at the overlapping beam the first direction is opposite to the second direction.